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# The State Institutions of Higher Education in Texas

Their Past Services, Future Possibilities and  
Present Financial Condition

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A Discussion

by the

Educational Campaign Committee

of the

Organization for the Enlargement by the State of  
Texas of Its Institutions of Higher Education

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AUSTIN, TEXAS

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**ORGANIZATION FOR THE ENLARGEMENT BY THE  
STATE OF TEXAS OF ITS INSTITUTIONS OF  
HIGHER EDUCATION.**

**Endowed Under the Auspices of the Alumni Association of  
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## **THE STATE INSTITUTIONS OF HIGHER EDUCATION IN TEXAS—THEIR PAST SERVICES, FUTURE POSSIBILITIES, AND PRESENT FINANCIAL CONDITION.**

The efficient organization and proper conduct and maintenance of the educational system of the State is the largest task that confronts the statesmanship of Texas at the present time. In spite of the great interest and sincere belief of our people in education, it is recognized that the schools of Texas, from the kindergarten to the University, have not been properly supported and, as a consequence, are not as efficient as they should be, and suffer greatly when compared with the schools of many other States and countries. On the other hand, our schools have done good service with the resources at their command, and this record guarantees a more splendid performance when greater resources are available. "He that is faithful in that which is least is faithful also in much."

On all sides are to be seen evidences of a thorough awakening on the part of the people of Texas in whatever concerns education, either higher or lower. Everywhere communities are building up better schools, and the demand for good teachers can not be supplied. Everywhere it is recognized that the progress of the lower schools is absolutely dependent on the progress of the higher. Nowhere in the world do we find good common schools and poor colleges, nor good colleges and poor common schools. *The interests of all education and of all educational institutions are linked together.* Thus, while planned specifically to promote higher education, the organization which is publishing this pamphlet proposes to encourage, not higher education alone, but all education, and, through education, to promote the real welfare of Texas.

### **DUTIES OF STATE INSTITUTIONS OF HIGHER EDUCATION.**

1. To prepare their students especially for useful citizenship. The personal enjoyment or advancement of their pupils is not their chief aim. They must give to their students not only the power

to be useful to the State at large, but they must also give the loyalty and the patriotism and the high ideals that create the desire to be useful.

2. To prepare thoroughly for various occupations in life. Good workmanship is an essential part of good citizenship. Each individual should be prepared, as efficiently as possible, to perform a proper share of the world's work.

3. To prepare for a wise use of the leisure hours of life. Ill spent leisure is responsible for an enormous amount of the world's evil.

4. To put their services through extension lectures and correspondence courses as far as possible within the reach of persons scattered over the State who desire training, but who can not become resident students. The services of educational institutions should not and must not be limited to resident students.

5. To apply the technical learning of their faculties and the resources of their laboratories and libraries to the uses of business, manufacture, agriculture, and philanthropy.

6. To make contributions to the sum of human knowledge.

Most people will agree to the general propositions of the foregoing paragraphs, but many Texans are not fully informed concerning the work of the State colleges, their limitations and possibilities.

The twofold object of the present pamphlet is: (1) To outline the services now being performed by the higher educational institutions of Texas and to indicate the additional services that will be performed when additional funds are provided; (2) to compare the financial status of our State higher educational institutions with that of similar institutions in certain selected states.

## THE UNIVERSITY OF TEXAS.

### Services, Actual and Possible.

Since its foundation in 1883, about 12,000 students have attended the University, of whom over 3000 have taken degrees.

Today, enrolled in its various departments, are over 2000 students, not counting the 500 that are doing correspondence work, nor the 800 that were in the 1911 Summer School. Despite a steady advance in the entrance requirements, which have now been standardized (no considerable further advances being contemplated) there has been a rapid increase in numbers. With no further change in entrance requirements the increase in the future will be even more rapid.

**General.** A small institution at first, most of its ex-students are still young; nevertheless, in all parts of the State are to be found University alumni holding honorable places in their communities and leading useful lives. Through its system of affiliated schools the University has done much to raise standards among Texas schools. It has attempted to develop, and with some success, an honor system and student self-government to a point not elsewhere reached. The excellent moral condition among its students is evidenced by numerous religious activities, which have been set forth in a separate bulletin. Two-fifths of its students are self-supporting. The student body is serious and well behaved, the faculty loyal and diligent. Allowance being made for its limited resources, the University may be said to be an efficient institution. Compared with the great universities of the North and East, the University has, in proportion to number of students, only two-thirds of their instructing force, less than one-half of their income, and less than one-third of their equipment. The University has been inspected and reported upon with favor by various experts, and, while probably of the second class according to the standards adopted by the Association of State Universities, it welcomes competent investigation, feeling sure that it has done what it could with the means at its disposal.

Its necessities are many and great. A Science Building is

needed in order to provide additional space and to get valuable instruments into a fireproof building. A building for the Department of Education is practically imperative. An additional Engineering Building is necessary. A Museum Building for the exhibition of Texas products, resources, plants, and animals should be begun at once. Northern institutions are sending field parties to Texas to collect for their museums, and many of our choicest specimens are now carefully preserved outside of our State.

The Medical Department needs a Laboratory Building and a Medical Museum. For buildings, a million dollars could be spent to immediate advantage. Dormitories and student dining halls are also much needed.

The Schools of English, French, German, Latin, and Spanish have been overcrowded and undermanned for years. The instructors in these subjects have been forced to read too many themes, essays, and exercises to allow time for needed revision and advice. Owing to lack of room, two and even four instructors have been assigned to the same office, a crowding which has greatly interfered with the effectiveness of personal conferences with, and advice to, students. These conferences are in addition to general classroom instruction and form an essential feature of University work.

The weekly routine of an instructor in these subjects involves twelve hours of classroom instruction, about twenty-four hours of personal conference, and the reading of from one hundred to two hundred themes, essays, and exercises, which renders proper instruction impossible.

Perhaps the greatest single task of the University is to prepare teachers for public schools. So great is this task that all of the educational institutions of Texas are unable to supply half the demand. The University receives from the schools of Texas four times as many calls for teachers as it can fill acceptably, the calls numbering about six hundred during the last twelve months. Over 350 students are doing work in Education during the regular session, over 500 during the Summer School. During the summer, many



active teachers resort to the University for study, and it is now seldom that one finds a teacher of the upper grades in Texas schools who has not spent at least one summer session in Austin. Graduates of the University are to be found in considerable number in the faculty of the University itself, of the Normals, and of the other higher schools in the State.

The Education Department of the University is in urgent need of two buildings, one for its own work, and one for a practice school. Its faculty needs expansion in several directions. Courses in Physical Education, in School Music, and in School Art, could be offered to great advantage. Additional teachers in the subjects now offered are made necessary by the large number of students. Particularly crowded are the courses in School and Class Management, Psychology, History of Education, and Educational Administration. Special courses in the teaching of History, Mathematics, Latin, Geography, and Botany, are being given, and other special teachers' courses are in contemplation. The work in Library Training also needs expansion, there being a considerable demand for librarians. A special course in Children's Books is one of pressing demand.

The Law Department of the University, during the twenty-nine years of its existence, has graduated many excellent lawyers, and has had much to do with elevating the standard of legal education in the State. The Department is, and ought to be, the only law school in Texas. Recognizing its heavy responsibility, the Department is raising its standard as rapidly as conditions will permit. For entrance it now demands a full year of college work. Many of its students are college graduates. Its curriculum not only demands a study of various law topics, but requires also considerable work in certain fundamental sciences that underlie the law. Thus, courses in History, Economics, and Government are required of all students taking the law degree. The Department further recognizes that public affairs are largely in the hands of lawyers, and that, as a consequence, our lawyers should be well trained in matters relating to the public welfare. They should be trained not only to know what the law is, but also to know what

the law ought to be. The public has a right to demand constructive legislation from the legal profession.

To provide this broad legal training, additional courses must be offered on Damages, Domestic Relations, Bankruptcy, Statutory Construction, Mining and Irrigation, Mortgages, Taxation, Roman Law, Trusts, and Administrative Law. Already the Law Department stands high in Texas, but it must increase its requirements to keep pace with the increasing demands of the times.

To the courses now being given in Mathematics should be added courses in Advanced Commercial Arithmetic, Calculation of Life and Fire Insurance Premiums, and Statistics.

**Science.** The University possesses only a small unmounted telescope, and frequent surprise is expressed at the absence of an astronomical observatory. The University has not even the beginnings of a student observatory, and has not even hoped to possess the large modern instruments for studying the heavens which are to be found in a properly equipped astronomical observatory.

In recent years the work in Chemistry, Botany, and Zoology has been much strengthened. Courses in Organic and Inorganic Chemistry, Assaying Ores, Gas Analysis, Water Analysis and Electro Chemistry; in Botany, Plant Physiology, Plant Diseases, Horticulture, and the teaching of Agriculture; in Zoology, Anatomy, Human Physiology, Hygiene, and Practical Zoology, are regularly given to large classes.

In these courses, as in those given in Physics and Geology, the object is to lay a sound foundation of scientific knowledge without neglecting the numerous practical sides of scientific work. Greater attention should be paid, when means are provided, to economic Botany and Zoology, to the Disease of Plants, and to Wood Preservation. The work in all the fundamental scientific courses needs to be strengthened by additional laboratory equipment, and by additional instructors. The study of Texas plants and animals should be pursued with greater vigor and the Migration of the Injurious Plants and Animals should be carefully studied.

The Medical Department has recently been investigated by a competent observer, Dr. Abraham Flexner, who writes, after pointing out the deplorable standards of most medical schools, "Fortunately, a few schools can be

**Medicine.** named in different parts of the country which are doing their work well. The Johns Hopkins at Baltimore, the University of Pennsylvania at Philadelphia, the Western Reserve at Cleveland, the University of Michigan at Ann Arbor, and the University of Texas at Galveston, all appreciate what good medical education requires and go far to provide it in all its essential features." This is high praise, each of the other schools mentioned having many times the income of the Texas Medical Department. An increase of some 50 per cent in its income would, as has been often pointed out, increase greatly its efficiency and put it in a position to furnish a thoroughly excellent undergraduate training.

The most pressing demands of the Medical Department relate to more laboratory space and equipment and to means to spread generally among the people a practical knowledge of facts relating to hygiene, communicable diseases, physical education of children, water supply, food adulteration, and sanitation. This can be done by means of illustrated lectures and bulletins.

The opening of the Panama Canal is certain to bring to Texas numbers of cases of tropical diseases. As has been done at Tulane, the University of Texas should study with care these very deadly diseases, in order that the people of Texas, and of the United States, may be protected from them.

To justify the necessary cost of conducting within the State a Medical College of the first rank, let any thoughtful citizen ask himself, Is not the health of the people of Texas as important as that of the people of Massachusetts or New York? Shall not our sick be cared for by as skillful attendants as the sick of other states?

For many years, animated by the zeal and patriotism of the lamented Garrison and Bugbee, the School of History has brought the lessons of the past to the service of good citizenship and hundreds of young men and young women have profited thereby. Moreover, the rich field of Texas History has been diligently investigated at this University. Here was founded and here is published the *Quarterly* of the Texas Historical Association, now in its sixteenth volume and well known among historical publications. Our State archives are now being investigated by a competent band of young historians trained here. Always overcrowded, the School of History has a splendid record, both in teaching and in research, and it is a matter of regret that other states, California for example, spend more in the study of Texas History than has been available for that purpose at the University of Texas.

Many grave questions relating to governmental and economic welfare are now confronting the American people, and it is essential that these questions be solved wisely. Careful study is needed to secure wise solutions, and it is a prime duty of a state university to afford ample facilities for the thorough, unbiased, and non-partisan study of matters of public policy. "Cultivated mind," said President Mirabeau B. Lamar, "is the guardian genius of democracy."

### **Economics and Government.**

Already the University is offering courses in General Economics, Corporation and Transportation Economics, the Financial History of the United States, Public Finance, Agricultural Economics, Money and Banking, Economic Theories, Comparative Constitutional Law, Political Parties, Municipal Government, Political Science, History of Civilization, and Economic Geography. Each of these courses is largely attended, and there is a strong demand for additional courses on Public Utilities, Municipal Ownership, Statistics, Sociology, Charities and Corrections, Penology, Competition, Labor Legislation, Colonial Governments, European Governments, Federal Administration, State Administrations, Consular Service, Theory and Practice of Legislation, History of the Constitution, American Diplomacy, and Conservation.

Commercial affairs are every day demanding more and more training for their successful performance and, in increasing numbers, students are desiring to take courses in

**Business and Commerce.** Business and Commerce. A beginning has been made along these lines, but there is urgent need of a number of competent instructors to give course in Advanced Bookkeeping; Auditing; Bank Accounting; Cost Accounting; Office Systems; Store Management; Selling; Purchasing, and Shipping Systems; Credit Systems and Institutions; Money Market; Foreign Exchange, Loans, and Panics; Business Ethics; Fraudulent Investments; Business Management; Public Finance; Tariff; Taxation; Monopolies and Trusts; Industrial Progress; Advertising; Prices and Markets; Stocks and Bonds; Stock Gambling; Fire and Life Insurance; and a number of other practical business courses. At present many of these topics are mentioned in the various University courses, but the School of Business Training, recently created by the Regents, with one man in charge, will in a short time demand the services of several additional instructors.

Fairly complete and satisfactory courses are now offered in Civil, Sanitary, and Electrical Engineering and in Architecture.

**Engineering.** Chemical Engineering is still in its infancy at the University, and Mechanical Engineering does not exist. Some 250 students are pursuing courses in Engineering and the Department of Engineering needs to be strengthened by instruction in Irrigation, Road Building, and Hydraulics. There is demand for another Engineering Building and for two or three additional teachers, one of whom should give correspondence instruction in vocational subjects.

More attention should be paid to students who contemplate going into journalism. Such students need, among other things, preparation in reporting and editorial writing,

**Journalism.** in magazine writing, in advertisement writing, in the details of printing and publishing, and in the legal relations of the press, in current political topics, and in world politics. The power of the press in America is very great, and it is time that young men were trained to use this

power for just and wise ends. The four periodicals now published by the students of the University and an active Press Club of thirty members give some practice along journalistic lines, but a special instructor is needed to develop the work. The daily and weekly press constitutes the reading matter of most busy men and women; improvement of the press is, therefore, next to improvement of the common free schools, the best means of improving the education of the people.

In Music, as in Journalism, the University has as yet done little or nothing. The Glee Club, the Band, the Violin Club, and other similar organizations have flourished with but little official help. Before long the University must give some regular instruction in Music, as is now done in most of the great institutions of the country.

All real education is practical in that it prepares for better workmanship or more effective living. But some branches of learning prepare so directly for certain generally followed occupations that they have been more easily recognized as practical.

During the last two or three years several beginnings, modest of necessity yet significant, have been made. The Department of Extension, created in 1909, has already enrolled nearly a thousand earnest students (whose wants the State can not afford to deny) in correspondence study courses, and has loaned many traveling libraries and sets of educational lantern slides to teachers, county superintendents, and others. A special lecturer on rural school problems has been sent over the State, and plans of model rural school buildings have been widely distributed, many buildings having been constructed according to these plans. The testing laboratories of the Departments of Geology and Engineering have been busily employed in testing the oils, coals, lignites, clays, building stones, and cements of the State. A School of Domestic Economy, offering courses in Cooking and Home Management, was opened this year, and in a few days its classes were filled to overflowing, and it was necessary to stop further registrations.

These infant efforts to establish practical courses have brought to light demands for more complete service in several directions.

Already the Department of Extension is demanding the services of three or four special instructors to devote all their time to correspondence work. Two or three men are needed in the work of visiting rural schools. Another man is needed to visit city schools. Bulletins should be prepared in larger numbers, demonstrations should be conducted in various places, the advantages of higher education should be brought in practical form to the people who would profit by them.

To meet the requirements of the 600 girls now in the University, and the larger number yet to come, courses should be offered in Dietetics, Home Architecture, Textiles and Clothing, along with certain other courses mentioned elsewhere in this pamphlet.

Ample preparation should be made for manual training and the preparation of teachers of the various branches of manual training and the industrial arts. Some provision should also be made for advanced typewriting and stenography.

## THE AGRICULTURAL AND MECHANICAL COLLEGE OF TEXAS.

The Agricultural and Mechanical College of Texas, like the land grant institutions in other states of the Union, owes its origin to an act of Congress approved July 2, 1862.

**Origin.** This act donated public lands to the several states and territories which might provide colleges for the benefit of agriculture and the mechanic arts, and directed the Secretary of the Interior to issue land scrip to the states in which there was not the requisite quantity of public land. The act further directed that the money derived from this source should constitute a perpetual fund, the principal of which should remain forever undiminished, and the interest of which should be inviolably appropriated by each state to the endowment, support and maintenance of at least one technological college, whose leading object should be, without excluding other scientific and classical studies, and including military tactics, to teach branches of learning pertaining to agriculture and the mechanic arts, in order to promote the liberal and practical education of the industrial classes in the several pursuits and professions of life.

By joint resolution approved November 1, 1866, the Legislature of Texas accepted the provisions of the Congressional legislation, and accordingly there was issued to Texas scrip for 180,000 acres of public land, which was sold for \$174,000. This amount was invested in Texas 7 per cent gold frontier bonds. At the time of the opening of the College there was an addition to the fund of accrued interest amounting to \$35,000, which was invested in 6 per cent State bonds.

In an act approved in 1871, the Legislature provided for the establishment of the Agricultural and Mechanical College. A commission appointed to locate the College accepted the proposition of the citizens of Brazos County, and located the institution on a tract of 2416 acres of land in that county. The Constitutional Convention of 1876 constituted the College a branch of the Uni-



versity of Texas, and provided that the Legislature should have power to levy taxes for the maintenance and support of the College.

The College is supported partly by the Federal Government, partly by the State. From the Federal Government are derived the Morrill Fund, which is used mainly for paying salaries; the Hatch Fund, which supports the Main Experiment Station; and the Adams Fund, which is used in the prosecution of research in agricultural problems.

From the State are derived funds for maintenance and support; for buildings; and for the support of the State Experiment Stations. The interest on the original Federal endowment fund is also annually appropriated to the College by the State.

The physical plant of the College consists of the tract of land on which the College is located, eight dormitories (and one other in course of erection), a Main Building for offices and section rooms, an Agricultural and Horticultural Building, a Chemical-veterinary Building, a Civil Engineering Building, an Experiment Station Building, a Mechanical Engineering Building, a Textile Engineering Building, a Hospital, a Veterinary Hospital, a Farm Implement Building, a Natatorium, a Water, Ice and Light Plant, a Laundry, a Sewerage System, barns and outhouses, and residences for instructors and officers with a total valuation of approximately \$1,000,000.

For the first thirty years of its existence, the enrollment of students in the College was not large. But its accommodations were limited, and for many years the enrollment has equalled or exceeded the dormitory capacity. In the session 1906-07 the enrollment for the first time exceeded 500. Since that year the increase in attendance has been rapid, and for the current year the enrollment is 1126. For the last five years the insufficiency of dormitory room has been met by the use of tents. During the session 1910-11 the number of cadets quartered in tents was 486.

The ways in which the Agricultural and Mechanical College serves the State fall under two general heads. The first and most important is the training of young men

**Services.**

with the object of fitting them to become leaders of thought and of progress, and to take a leading part in the material development of the State. For this purpose the College has now in operation the following departments: Agricultural Extension, Agronomy, Animal Husbandry, Architecture and Drawing, Biology, Chemistry and Chemical Engineering, Civil Engineering, Dairy Husbandry, Electrical Engineering, English, Entomology, History and Economics, Horticulture, Mathematics, Mechanical Engineering, Military Science and Tactics, Physics, Textile Engineering, and Veterinary Science. There are four-year courses in Agriculture, Architecture, Architectural Engineering, Chemical Engineering, Civil Engineering, Electrical Engineering, Mechanical Engineering, and Textile Engineering; and two-year courses in Agriculture and Textile Engineering.

The services of graduates of the College are in active demand in railroad offices and in the field; in mills, machine shops and electrical establishments; on farms and ranches and in many other lines of industrial activity.

The second of the ways in which the College serves the State is to be found in its activities in behalf of the people at large. These activities take several forms.

(a) The experiment stations constitute one of the most important of them. The staff of the Main Station, located at College Station, includes a chemist, an entomologist, an agronomist, a botanist, a plant pathologist, an animal husbandman, a veterinary surgeon and a horticulturist, with their assistants. Results of experiments are reported from time to time in bulletins which are sent free to farmers and others interested in agricultural developments. The mailing list contains about 40,000 names.

The discovery of a method of rendering cattle immune to Texas fever was a result of the collaboration of the Texas and the Missouri Stations. The amount of money already saved the stockmen of Texas by this one discovery is doubtless more than the total of all appropriations made up to this time by the State to the College, to say nothing of what has been saved to other states below the quarantine line.

The ten State stations, located at Angleton, Beaumont, Beeville, Denton, Lubbock, Nacogdoches, Pecos, Spur, Temple, and Troup, devote themselves to field experiments involving local problems. Their superintendents co-operate with farmers for the purpose of improving agricultural practice.

(b) The Department of Agricultural Extension was established for the purpose of extending the benefits of the College to men actively engaged in farming, but not able to enter upon a regular college course. Its main forms of activity are correspondence courses in agriculture, educational demonstration trains, organization of Farmers and Boys and Girls' Clubs and co-operation with fair associations.

(c) The administration of the feed control law is under the supervision of the director of the experiment station. The object of the law is to protect purchases of feed stuffs from adulteration and other frauds. Results of analyses are distributed to all persons interested.

(d) The Division of Highway Engineering, established in response to public interest in the movement for good roads, is in charge of a member of the Department of Civil Engineering, who, in addition to his duties as teacher in the College, delivers lectures at other places and gives suggestive advice, and uses all available means to promote the movement for good roads.

(e) The College maintains a Summer Normal for the benefit of teachers who may wish to add to their professional attainments. Special opportunity is offered to teachers to equip themselves for the teaching of agriculture in the public schools.

The College has by no means reached the limit of its usefulness. Standing as it does for thorough training and applied science, it should teach not only by precept, but by exam-

**Needs.** By reason of its isolated position, it necessarily performs certain functions which are usually in the hands of a municipal government. For example, it operates its own waterworks and lighting system. Obviously, these should be models of their kind, so that even experts might take lessons from them in the application of scientific principles to practical affairs. Its building should be of the best types of architecture. Its walks and drives should be object lessons in road-

making; its sanitary arrangements should be models for the sanitary engineer. In all such matters the College should set up standards. In a word, whenever it undertakes to apply the principles it teaches it should do so in such style as to exemplify, in the best possible manner, the advantages to be derived from a combination of science and practical knowledge. It should never be compelled "to teach by antithesis," as it sometimes is, with its present limited resources.

But education along technological lines is of the most expensive sort; and to carry on work of this kind on a large scale requires the expenditure of much money. In order more completely to fulfill its mission, the equipment of the College should be largely increased. Among the more urgent needs of the College are a Good Library, well stocked; a Hospital; an Administration Building; an adequate Agricultural Building; an Auditorium; a Museum; a Pavilion for Stock-judging; an increase in number of teachers, so that classes may be made smaller; and a strengthening of its extension work. To develop this College into an institute of technology second to none in the Union would result in inestimable good to the State.

## THE COLLEGE OF INDUSTRIAL ARTS.

The College of Industrial Arts was created by an act of the Twenty-seventh Legislature in April, 1901. The law creating the

**Present Facilities.** College provided for a locating commission, whose duty it would be to select a suitable site for the College. This commission, after an extended tour of investigation, finally, in February, 1902, located the College at Denton. The cornerstone of the main building was laid January 10, 1903, and the first term's work began September 23, 1903.

Section 5 of the act creating the College set forth rather in detail the scope of the work to be pursued in the College and the position it was to occupy among the institutions of higher learning in the State. The section reads as follows: "The establishment and maintenance of a first-class industrial institute and college for the education of white girls in this State in the arts and sciences, at which such girls may acquire a literary education, together with a knowledge of kindergarten instruction; also a knowledge of telegraphy, stenography, and photography; also a knowledge of drawing, painting, designing and engraving, in their industrial application; also a knowledge of general needlework, including dressmaking; also a knowledge of bookkeeping; also a knowledge of scientific and practical cooking, including a chemical study of foods; also a knowledge of practical housekeeping; also a knowledge of trained nursing, caring for the sick; also a knowledge of the care and culture of children with such other practical industries as from time to time may be suggested by experience, or tend to promote the general object of said institute and college, towit: fitting and preparing such girls for the practical industries of the age."

The availability of funds has never been sufficient to carry out all the provisions of the law, but it has been the policy of the governing authorities to add departments and provide instruction as fast as funds were provided therefor by the State. At the present time the College plant consists of six buildings, located on a campus of seventy-three acres of rising ground in the north division

of the city of Denton, the value of the entire plant being estimated at about \$400,000, with a faculty of twenty-five instructors. The enrollment for 1909-10 was 258 students and the attendance for the present year is 360, which indicates a gain of 102 students for the present year. There has been a constant and healthy growth of the institution year by year since its establishment.

In serving the interests of the State, the College has provided four regular courses with different contents, as follows: The Literary Course, Household Arts Course, the Fine and Industrial Arts Course, and the Commercial Arts Course. No student can graduate from the College without taking some industrial work, but the amount of this work varies considerably in the different courses. For example, in the Literary Course the minimum of industrial work is offered, the emphasis being laid on the usual literary subject matter of the regular College course; and while the students take courses in Cooking, Dressmaking, and Art, the larger interest of the student is concentrated on the Languages, Mathematics, History, English, and the Sciences. In the Household Arts Course the principal emphasis is on industrial work, including Applied Chemistry, Textiles, Dressmaking, Landscape Gardening, Laundering, Home Sanitation, Applied Economics, Dietetics, House Planning, Dairying, and Home Nursing. In the Fine and Industrial Arts Course the emphasis is laid on the principles of Design, Costume Design, Water Color, China Painting, Modelling, Stencilling, Home Decoration, and Picture Study. The Commercial Arts Course lays emphasis on Bookkeeping, Shorthand and Typewriting, and such correlated subjects as English, Spelling, and Commercial Law. This course is designed to equip thoroughly women for the highest efficiency in stenographic and general office work. To meet the demand of a large number of students whose time and means were too limited to enable them to take a full College course, but who were ambitious to prepare themselves as bread winners, the College also offers several Trade or Vocational courses, which consist of intensive work in one department extended throughout one entire year. The courses offered at the present are as follows: Dressmaking, Millinery, Photography, Shorthand and Typewriting, and Bookkeeping. These courses have already proved profitable and the number who are now taking these courses indicates that they are filling a real need in this State. It is the

plan of the Board to extend the number of Vocational courses as rapidly as funds and facilities can be provided.

The wider opportunities now open to women are increasing the demand for a greater variety of short-term courses. Trade courses should be offered in Floriculture, Dairying, **Additional Services.** Ceramics, Telegraphy, Professional Nursing, etc. A Department of Kindergarten Training is also a requirement of the law for which there is considerable demand, but the Board of Regents has been unable with the present facilities to provide for this Department. The College also needs to extend its Chemistry courses so as to include more of the Chemistry of Food and Food Analysis. There is also a great demand by the students of this institution for vocal and instrumental music. This institution should provide for the equipment of music teachers and also provide for music instruction for those students who will need it for the cultural influences in their own homes. Music is a practical subject and almost a universal need for a woman who is called upon to create a home atmosphere. At the present time no Texas State institution of higher learning provides for such instruction. Therefore, it is the logical and appropriate thing for the College of Industrial Arts to provide ample facilities for such a department.

To meet these demands the following are imperative and urgent needs:

In an institution of the character of the College of Industrial Arts, Chemistry occupies a very important place. It is a fundamental necessity in correlation with cooking, textiles, laundering, dry cleaning, **Chemistry Building.** dairying and photography. With a larger emphasis that is now being laid on pure food, every woman should know how to test for the adulteration of foods, for the adulteration and misrepresentations of textiles, fabrics, and such other applications of Chemistry as usually come up in a well regulated home.

At the present time there is only one chemical laboratory at the College, with accommodation for about twenty students working at one time. With more than three hundred students, most of whom take Chemistry, to be accommodated it is impossible to pro-

vide adequate laboratory space for them, and this problem grows more imperative as the number of students increases. A building is needed with ample laboratory rooms and equipment for General Inorganic Chemistry, for Food Analysis, for Textile Chemistry, and adequate lecture and storerooms to meet fully the needs of this important department.

In order to decrease the expenses of the students as much as possible, the Board of Regents established a laundry where the work of all students could be done at the

**Laundry Building.** least possible expense. As no room was provided, the laundry was placed in the basement of Steddard Hall, the State Dormitory. This has never been a desirable arrangement. In the first place, there is considerable noise in connection with the laundry work, which is a great annoyance and interference to those who study in their rooms between classes. In addition to the inconvenience, the fire risk is considerably increased by having the laundry in the basement and with the increase in the number of students to be accommodated and the limited space that can be allotted to the laundry it is difficult to provide room for the amount of machinery necessary to do the work adequately. In addition to all of these reasons, the growth of the student body has more than overtaxed present facilities and the room now used for the laundry is *very greatly* needed to provide room for students. These weighty reasons compel the College authorities to hope and to expect that a building for the laundry will be provided by the Thirty-third Legislature.

The most imperative need of the College today is an additional dormitory. With a present enrollment of three hundred and sixty students there are dormitory facilities for

**Dormitory Needed.** only one hundred and fifty. The State dormitory, with capacity of one hundred students, is now accommodating one hundred and twelve with board and room and providing board for about forty additional students who are required to come quite a distance, often in extremely disagreeable weather, to their meals. In addition to this a large number are compelled to board out in town and on account of the geographical position of the College they are neces-



sarily compelled to board long distances away. Boarding houses are very few in this section of the town and on account of having one dormitory, it has been impossible to induce people to build houses for this purpose. This condition has made it necessary to turn many students away, and it is conservatively estimated that more than two hundred students will thereby be prevented from entering the institution in the fall of 1913. It is practically the universal policy of all schools of this character to provide dormitories for their students, and the State of Texas can not afford to refuse to provide boarding facilities for the hundreds of young women who are now seeking instruction at this College.

The continuous growth of the institution from year to year has given sufficient evidence that its opportunities are appreciated by the people. The fact that for four years the facilities of the College have been insufficient to meet the needs of the student body, creates

**Conclusion.**

a paramount obligation on the part of the Legislature to support the College more liberally. The people of Texas need the College of Industrial Arts. Home-making is at least as important as agriculture. Many million dollars are invested annually in food, clothing, and shelter in the United States, much of which is wasted on account of incompetent housewives. When you consider this fact in connection with infant mortality, the amount of illness due to preventable diseases, and the unhappy home life resulting from inefficient home-makers we can not fail to be impressed that the greatest responsibility of any state is to provide adequate training for future wives and mothers. This is the lofty aim of the College of Industrial Arts, and it should be the pride of Texas to enable every girl within her borders to partake freely of the opportunities there offered.

## STATE NORMAL SCHOOLS OF TEXAS.

The maintenance at public expense of adequately equipped Normal Schools for the proper training of teachers has within recent years become one of the essential and vital parts of the State's system of public education.

### **Introductory.**

So general has become the recognition of this phase of education that there are now maintained in the several states 196 public normal schools, giving instruction annually to 79,546 teachers and student-teachers. In these schools there are employed 4184 instructors, and the total expenditures by the states for their support exceed nine million dollars annually.

The primary function of the Normal School is the proper training of teachers. The accomplishment of school reform is possible only through the uniformly active and aggressive effort of the teaching force. The greatest problem of good public schools in Texas is the problem of efficient teachers, and the problem of efficient teachers is the problem of developing and enlarging the work of the State Normal Schools that are established primarily for the training of teachers.

The State Normal Schools of Texas, located respectively at Huntsville, Denton, San Marcos, and Canyon, are rendering effective service to the people of the State in training teachers for the common schools. During

### **Normal Schools of Texas.**

the past year these schools gave instruction to 4500 teachers and students, about one-half of whom attended only the summer normal or summer school sessions. Annually there graduate from these schools approximately 350 teachers, who carry professional training and educational spirit into every county in Texas, thereby giving an impetus to educational progress and inspiration for better teaching.

While the four Normal Schools of Texas have taken on new life and are rapidly moving into their appropriate place in the State's system of education, the number of teachers that they graduate and supply is relatively small. Our State is calling annually for more than 3500 new teachers; and yet the total yearly

support of Normal graduates is represented by the comparatively small number of 350. Not including those who probably obtain professional instruction elsewhere, or those who pursue undergraduate work, there still remains, upon a conservative estimate, a vast host of 2000 young men and young women who enter annually the profession of teaching with only a superficial preparation. Is Texas performing the duty in this respect which she owes to the boys and girls of the common public schools?

An examination of the following table, giving information with respect to State Normal Schools in the United States, will indicate that Texas falls far short of the average state in the provision for these schools:

	United States.	Texas.
Total No. of State Normal Schools.....	196	4
Total No. of students, regular session.....	79,546	2,250
Total No. of instructors.....	4,814	88
Average No. of pupils per instructor.....	16.6	25.6
Average annual cost of maintenance per school to the State.....	\$71,840	\$44,625
Average value of laboratories for each school .....	\$23,950	\$8,750
Average value of buildings for each school.	\$183,300	\$125,000

The State of Texas expends less per capita on the enrollment in her Normal Schools for the training of teachers than the average state of the Union, while it falls far below that of the average progressive western state. Some of the states provide a part of the living expenses of the students. The teachers who attend the summer sessions of the four Normal Schools in Texas spend as much money for board, tuition, and other expenses as the State spends on these schools for the entire year.

An examination of the above table further proves that the average State Normal School is investing more money in the construction of buildings than the average State Normal School in Texas, all of which means that their buildings are larger, more modern in architecture and better equipped. The administration buildings in a very few of the Normal Schools of other states cost

less than \$100,000 each, while the science buildings, library and other buildings cost from \$25,000 to \$100,000 each. It should be the settled policy of our State to give larger appropriations for the construction of modern, convenient and sanitary buildings that are planned by competent architects to meet the needs of these schools for a long period of time, and not merely to meet the immediate demands.

An examination of the official reports of State Superintendents and of the United States Commissioner of Education indicates clearly that the standards of the Texas

**Future Requirements.** Normal Schools fall below the standards that prevail in the leading normal schools of the country. Recently, the State Normal School Board of Regents increased both the entrance and graduation requirements for the Texas Normal Schools. If we are to keep up with the progress of other states, as above indicated, the standards must be raised further. To meet these requirements, additional revenues will be necessary.

Attention is also directed to the fact that the average number of pupils per instructor in the normal schools of the United States is 16.6, while the average number of students per instructor in the Normal Schools of Texas is 25.6. This does not take into consideration that the average teacher in the Texas Normals gives instruction to as many more students during each session of the summer school and the summer normal, all of which is excluded from the above calculation. It is, therefore, necessary that more money be expended for the employment of additional instructors, if the Normal Schools of Texas are to bear a creditable comparison with those of other states, and do the work demanded of them by the State.

(a) Liberal allowances should be provided for erecting modern fireproof buildings.

(b) Every State Normal School in Texas needs a modern, fireproof building, attractive in design, in which to conduct a training and observation school.

(c) Some of them need industrial buildings with live stock

pavilions and provisions for the proper exhibition of farm and poultry produce.

(d) They should all be equipped with laboratories and libraries for training teachers for all the schools in a way that is becoming to our commonwealth.

(e) The faculties should be selected on the highest professional plane, and in each department there should be an ample supply of men and women of the best quality of preparation to do the work of preparing for Texas schools the best supply of the best teachers to be found on the continent. To secure and maintain this class of instructors, salaries must be paid that are more commensurate with the importance of the services rendered.

The teachers who are being trained in the Normal Schools of Texas are among the influential and progressive class of men and women, and the responsibility of the work which they have chosen assumes a high and honorable rank among exalted professions. It is the duty of our State to see that Texas children are taught by the best trained teachers, and that these teachers are trained in the best prepared schools of the country.

## **A FEW FACTS ABOUT DENOMINATIONAL EDUCATION IN TEXAS.**

An exhaustive study of the history of higher education reveals constantly the influence of the church as a most potent factor. In the Dark Ages the monasteries were the repositories of classical knowledge, and the churchmen were the exponents of the highest educational attainments. It was through their influence that European universities, organized for the purpose of propagating church creeds and the Christian virtues, fostered higher learning in a degree not commonly appreciated. Religious zeal, seeking freedom from the tyranny of the Old World, planted on American soil the seeds from which has grown the modern university, many of our present institutions of higher learning being an essential part of Colonial history.

The history of educational activity in Texas suffers no exception to the rule. Organized denominations of the Christian religion likewise furnished the vanguard for education in our State. They made, and are now making, an invaluable contribution to a general intellectual awakening. In all phases of educational activity, and particularly in higher education, the State is debtor to the church in a degree not generally understood. The fathers wrote higher education into the Constitutions of the Republic and of the State, but tardy were the steps in its fulfillment. The Agricultural and Mechanical College opened its doors in 1876; the Sam Houston Normal in 1879; and the University of Texas in 1883. What if no efforts prior thereto had been put forth?

Baylor University was chartered by the Republic of Texas in 1845. Austin College and Southwestern University closely followed. Then came others. Teachers of the State, public and private, in the early days were prepared by the denominational schools. Even now they, in the aggregate, send forth annually more teachers for the public schools than the University of Texas. They sent forth the early Texas educated lawyers and doctors. Out of these schools went the ministry. To them every church of every denomination owed its origin and perpetuity. Doubters may look up the biographies of the early professional men of the

State. The elevating influence of the highest morality known to men was taught in these schools and practiced later by husbands and wives in the private precincts of their firesides. They were the shrines to which all Texas long looked for sources of culture in public and private life. They have set moral standards to which all institutions, public and private, have aspired.

At the time these denominational schools were established, public sentiment would not have provided the necessary funds to do the work which they did. This is certainly true in the light of the niggardly support now so often manifested toward the State institutions of higher education. Teachers in these schools, with rare fidelity, did their work underpaid, and they were possessed of equipment often unequal to the demands. Notwithstanding the handicaps, they annually sent forth hundreds of men and women highly prepared for life. The taxpayers paid not a cent of the cost. Without the product of these schools Texas would certainly not be on the heights of material and social prosperity, as we find her. The State was in no frame of mind to pay the price. Unselfish devotion to others brought forth the necessary money with religious zeal, money which the taxpayers would not yield.

Quoting from "A Statement Concerning the University of Texas," sent out in January, 1911, we find that the University of Texas educated her sons and daughters in the University cheaper than any one of ten other states mentioned for the year 1910. In the University of Texas that year it cost \$159 to instruct each student. For that year the University had 1027 students of college grade, exclusive of all professional and other students, making a total cost of \$163,293.

The nine leading denominational colleges of Texas of the "first class" in 1910 had a total of 1540 students of college grade, exclusive of all others. They were taught free to the State, sent out for service as citizens, at a total saving of taxation, at the University rate of cost, of \$244,860.

In 1910 the Medical Department of the University at Galveston had a total of 268 students. The same year the three denominational colleges of medicine and pharmacy in North Texas had a total of 434 students. It is freely granted that in many respects these denominational schools fall short of the best, yet they meet

the needs of the State in a large way and at absolutely no cost to the State. Their shortcomings have been improved from time to time close upon the heels of the University in nearly every case.

The above nine denominational colleges have a total valuation, not including endowments, of \$3,073,890. To this, much is added each year. They expect to go on and on through the years. All their possessions are for the service of the State in the production of cultured, Christian citizens. In this estimate no account is taken of the many Christian schools that do not come up to the standards undertaken by the nine to which reference is here made.

But a renowned history of generous service is not sufficient for present or future needs. It offers no guarantee for the perpetuity of an institution. It must measure its capacity for real efficiency by the larger standards of today and tomorrow. If the denominational schools of higher education in Texas are to maintain their wonted importance to the State, and to their respective denominations, as all will agree that they should, they must, in common with the State institutions of higher learning, obtain freedom from the embarrassing needs of financial support. A careful study of similar institutions elsewhere gives convincing proof that such can not be done satisfactorily except by liberal endowments commensurate with their needs and proportionate with their attendance. This leads to the important question, what constitutes a properly endowed institution? It is conservatively estimated that a college or university to be self-sustaining requires an endowment of \$3000 or \$3500 for each student to whom instruction is yearly offered. The denominational colleges and universities of Texas are rightly entitled to adequate support; but in the light of substantial facts, they can not reasonably expect it without liberal endowments.

Between the great educational forces of the State there is not, and can not be, any conflict. All have the great common aim of rendering service to humanity. There can be no strife between the higher institutions of education maintained by the State and those supported by denominational pride and activity, and the privately endowed institutions of learning. The general improvement and the material prosperity of the one means ultimately a corresponding improvement and prosperity of the other. Pride supplants jealousy, all realizing that the triumphs of the one are



the occasions for joy of the other. Each institution, whether State or denominational or private, has a definite function to perform, each is entitled to a rational existence, and in their proper relation each should be bound to the other by ties of mutual sympathy and respect.

## COMPARATIVE STATISTICS AND DIAGRAMS OF HIGHER EDUCATION.

The services that are being performed by the University of Texas, the Agricultural and Mechanical College, the College of Industrial Arts and the four State Normal Schools have been listed in the foregoing pages. The additional services that these institutions would render to the children of Texas were additional means available, have also been briefly indicated. But to perform additional services additional means must be provided. Texas can not expect her educational institutions to give as good instruction to her children as are given to the children of other states by the better supported schools of such states.

What are the people of other states spending for higher education? How do the expenditures in Texas compare with the expenditures in other states? How efficient are the educational institutions of Texas compared with those elsewhere?

To answer these questions for all the states would take too long. Some of the states are too small and poor to compare with Texas. Certain great states in the East have immense endowed institutions which render state support of higher education relatively unnecessary. For fair comparison there remain California and the great states of the Mississippi Valley, although, as may be seen in the following tables, great private educational institutions in Ohio, Illinois, Missouri and California have enabled those states to economize somewhat in their expenditures for higher education. This has lowered a number of the averages which follow.














The object of the following tables and diagrams is to present a financial comparison briefly, yet in sufficient detail. Under each state are included the totals that belong to all the higher educational institutions supported by that state. In Texas the University, the Agricultural and Mechanical College, and the College of Industrial Arts are included. Colorado, Michigan and Ohio, like Texas, support each three institutions, while Indiana, Iowa, Kansas and North Dakota support two each. The remaining states support each one consolidated institution.













State normal schools are omitted from the comparison. Their














inclusion would not seriously affect the general result. Our Texas Normal Schools are quite poorly supported in comparison with the state normal schools of other states.














The following tables are self-explanatory. It is to be noted, however, that the amounts expended for buildings and other permanent improvements have been excluded. For the purpose of this presentation this course seemed fairer, inasmuch as the annual expenditures for these purposes vary very widely. A table is given, however, showing the total values of the plants used for higher education in each State.

The averages given in the following tables exclude Texas and include the remaining thirteen states. The figures are based on the latest official reports of the United States census, the Department of Commerce and Labor, and the Bureau of Education.

Illinois		5,639,000
Ohio		4,767,000
Missouri		3,293,000
Michigan		2,810,000
Indiana		2,701,000
California		2,378,000
Wisconsin		2,334,000
Iowa		2,225,000
Minnesota		2,076,000
Kansas		1,691,000
Nebraska		1,192,000
Colorado		799,000
North Dakota		577,000














Michigan		\$2,134,000
California		1,628,000
Wisconsin		1,575,000
Iowa		1,315,000
Minnesota		1,207,000
Illinois		1,198,000
Ohio		1,147,000
Indiana		971,000
Kansas		823,000
Nebraska		689,000
Missouri		679,000
Colorado		609,000
North Dakota		437,000














Michigan		\$0.77
Colorado		0.75
North Dakota		0.75
California		0.68
Wisconsin		0.68
Iowa		0.59
Minnesota		0.58
Nebraska		0.57
Kansas		0.48
Indiana		0.36
Ohio		0.24
Illinois		0.21
Missouri		0.21














Michigan		\$0.51
Wisconsin		0.45
North Dakota		0.41
Colorado		0.37
Kansas		0.31
California		0.30
Indiana		0.26
Iowa		0.26
Minnesota		0.26
Nebraska		0.26
Ohio		0.17
Missouri		0.15
Illinois		0.11


Wisconsin		\$385
California		378
Iowa		363
North Dakota		363
Michigan		327
Minnesota		292
Ohio		280
Colorado		270
Indiana		252
Missouri		246
Illinois		245
Nebraska		243
Kansas		203
















Minnesota		\$1,471,000
Wisconsin		1,228,000
Illinois		1,097,000
Ohio		1,031,000
Iowa		1,016,000
California		1,012,000
Michigan		898,000
Kansas		886,000
Missouri		638,000
Indiana		586,000
Nebraska		501,000
Colorado		442,000
North Dakota		350,000

Minnesota		\$0.71
North Dakota		0.60
Colorado		0.55
Kansas		0.52
Wisconsin		0.52
Iowa		0.46
California		0.43
Nebraska		0.42
Michigan		0.32
Indiana		0.22
Ohio		0.22
Illinois		0.19
Missouri		0.19

Michigan		\$1,258,000
California		661,000
Wisconsin		561,000
Indiana		555,000
Illinois		463,000
Iowa		403,000
Minnesota		336,000
Ohio		332,000
North Dakota		265,000
Nebraska		248,000
Colorado		220,000
Missouri		216,000
Kansas		215,000

North Dakota		13.0
Wisconsin		11.7
Illinois		11.6
Nebraska		11.6
Colorado		10.4
California		9.8
Iowa		9.6
Minnesota		8.7
Indiana		8.3
Ohio		7.8
Michigan		7.2
Kansas		6.6
Missouri		6.3

California		\$9,488,000
Michigan		6,428,000
Ohio		6,253,000
Minnesota		6,070,000
Iowa		5,684,000
Wisconsin		5,660,000
Illinois		4,305,000
Kansas		2,894,000
Colorado		2,619,000
Missouri		2,366,000
Indiana		2,296,000
Nebraska		1,930,000
North Dakota		1,590,000

ITEM.	From Table	TEXAS	The average
Population, 1910.	A	3,897,000	2,500,000
Income for Higher Education, 1911.....	B	\$541,000	\$1,110,000
Income for Higher Education per inhabitant	C	15 cents	44 cents
Income for Higher Education per \$1,000 actual wealth	D	16 cents	23 cents
Income for Higher Education per student in Regular Session	E	\$167.00	\$296.00
Income for Higher Education from State Taxes	F	\$595,000	\$858,000
Income for Higher Education from State Taxes per Inhabitant	G	15 cents	34 cents
Income for Higher Education from Endowment, Fees, etc	H	\$296,000	\$441,000
Number of Teachers per Hundred Students.....	I	6.1	9.3
Values of Higher Educational Plants.....	J	\$3,213,000	\$4,430,000



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